

State of California  
AIR RESOURCES BOARDEXECUTIVE ORDER A-13-17  
Relating to Certification of New Motor Vehicle Engines

## CATERPILLAR TRACTOR COMPANY

Pursuant to the authority vested in the Air Resources Board by Sections 43100 and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That Caterpillar Tractor Company 1977 model-year diesel-powered engines in heavy-duty motor vehicles are certified for the engine family described below:

<u>Engine Family</u>	<u>Engine Size (CID)</u>	<u>Engine Model</u>	<u>Type</u>
12	1099	3408	V8 - Turbocharged-Aftercooled

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the manufacturer affix a decal to the side window to the rear of the driver or, if there is no such window on the driver's side, to the windshield of the motor vehicle.

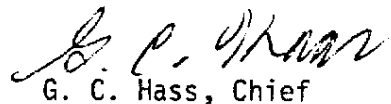
The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following recommended values:

<u>Engine Family</u>	<u>HC + NOx gm/bhp-hr</u>	<u>CO gm/bhp-hr</u>	<u>HC gm/bhp-hr</u>	<u>NOx gm/bhp-hr</u>
12	Not applicable	1	0.2	5.4

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Department of Motor Vehicles, the California Highway Patrol, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California, this 17 day of December, 1976.



G. C. Hass, Chief  
Vehicle Emissions Control Division

## 1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Tractor Co. Executive Order No. A-13-17 Page 1Engine Family 12 Engine (CID) 1099Emission Control Systems \_\_\_\_\_ Type Inline 6-TCA

Engine Model	Fuel Pump Mfgr. Part Number	Injector Mfg. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP	Basic Initial Timing
3408	Caterpillar 9N2513	Caterpillar 4N1251	450 HP @ 2100 RPM 425 HP @ 2100 RPM 400 HP @ 2100 RPM 425 HP @ 1950 RPM 400 HP @ 1950 RPM	191 mm <sup>3</sup> /stroke 181 lbs/hr 179 mm <sup>3</sup> /stroke 170 lbs/hr 169 mm <sup>3</sup> /stroke 160.5 lb/hr 191 mm <sup>3</sup> /stroke 168 lb/hr 179 mm <sup>3</sup> /stroke 157.5 lb/hr	11° BTDC (static)

Comments

Date of Issue: 121776  
Rev. 011077(telecom by Gary Keithley)

Abbreviation

Type

NA - Natural Aspiration

TC - Turbocharged

TCA- Turbocharged and Aftercooled